APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,356	09/13/2004	Ruci-Chuan Chang	ACIP0019USA	5355

27765 7590 02/22/2007 NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116	EXAMINER
	BAE, JI H

ART UNIT	PAPER NUMBER
2115	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/22/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/22/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

winstonhsu@naipo.com

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
	10/711,356	CHANG ET AL.
Office Action Summary	Examiner	Art Unit
	Ji H. Bae	2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 November 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>11-18</u> is/are allowed.

6)☒ Claim(s) <u>1-4, 6-10 and 19-22</u> is/are rejected.

7)☒ Claim(s) <u>5</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed on 29 November 2006 have been fully considered but they are not persuasive.

Applicant has argued that Norris teaches against Ninomiya because "Norris discloses a system where power consumption is changed according to requests from tasks, whereas Ninomiya discloses a system where power is allocated according to an input operating time and hardware components therein".

First, the examiner responds by pointing out that, strictly speaking, power cannot be allocated to a task. It is evident that when a practitioner of the art speaks of allocating power to a task, he or she means that a power consumption level is allocated to the hardware to complete a given task. The examiner points out that the applicant teaches as much on pp. 6-7, paragraph 22, where a power management module of a portable device allocates power to *the processor* with different time slices based on different kinds of tasks. It is readily understood that by varying the processing time (e.g. number of time slices) allocated for a particular task, how much power that task consumes can be controlled. Thus, the examiner interprets all limitations pertaining to "allocating power to a task" to mean allocating power to the hardware used to complete the task.

The examiner points out several aspects of Norris and Ninomiya's teachings that are relevant. Norris teaches that when a particular task is judged to be a processor intensive function, the performance state of the processor is increased [Fig. 5, col. 6, lines 57-65] – i.e. additional power is allocated to the processor to complete the task. Ninomiya teaches a method wherein power for the components of a computer system are calculated on a unit time basis [col. 9, lines 15-32]. The method of Ninomiya first allocates fixed power amounts to certain

components, then calculates power to be supplied to "power-consumption-variable" components. Ninomiya teaches that of these power consumption variable components is the CPU [col. 9, lines 33-46], which Norris also teaches may be adjusted based on the performance state required. Ninomiya further teaches that the user may specify a desired operating time. Once the system has calculated assigned power in the manner described, it determines whether the power allocated to the components will allow the system to operate for the user-specified operating time. If it does not, appropriate steps are taken [col. 10, lines 25-37].

Both Norris and Ninomiya are concerned with power consumption in portable computer systems. Ninomiya teaches that it would be desirable to set a desired operating time for a portable computer system [col. 1, lines 39-47]. In light of both Norris and Ninomiya's teachings, it would have been obvious to one of ordinary skill in the art that the performance state management aspect of Norris would be improved by adding the teaching of Ninomiya that allows for a user to specify an operating time and to determine whether or not current battery levels and performance state would allow that operating time.

Applicant has argued that Norris and Ninomiya teach against each other because "Norris discloses a system where power consumption is changed according to requests from tasks, whereas Ninomiya discloses a system where power is allocated according to an input operation time and hardware components disposed therein" [pp. 8, lines 15-18]. The examiner disagrees. Based on the reasoning presented, the examiner believes that there is motivation to combine because of

- the relationship between power required to complete a task and power allocated to hardware that is executing the task,
- the same field of endeavor (power consumption in portable computer systems)
- and the desired improvement taught by Ninomiya.

Applicant has also argued that "... since the power allocation per unit time cannot be controlled, Norris neither teaches nor suggests that these performance states are determined according to ratios of unit power supply. Therefore Norris fails to teach allocating a ratio of total power to each task. Similarly as stated above, Ninomiya teaches allocating the available power based on hardware components instead of software tasks. It is clear that Ninomiya also fails to teach allocating a ratio of total power to each task."

In response, the examiner points out that applicant has merely attacked each of the references individually, instead of addressing the combination. As stated in the MPEP 2145, heading IV, "Arguing Against References Individually":

> One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The examiner submits that in the combination, allocation of a ratio of the power to a task is shown. More specifically, the examiner submits that since Ninomiya teaches that power is distributed amongst a plurality of components, and because no single component uses all the power of the power supply, whatever the component receives must be a "ratio" of the total, since it does not consume the total power.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 6-10 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norris, U.S. Patent No. 5,630,148, in view of Ninomiya et al., U.S. Patent No. 5,532,935.

Regarding claim 1, Norris teaches a method comprising:

categorizing each task to be executed on the portable device [Fig. 5, step 100, col. 6, lines 50-59];

prescribing a power management policy according to a category of which each task is associated therewith; [Fig. 5, step 104, col. 6, lines 60-65] and

increasing the share of the unit power supply allocated to a task running in an active window according to the commands entered through a graphical user interface [col. 6, lines 5-16, col. 7, lines 17-23].

Ninomiya teaches:

allocating a predetermined ratio of a unit power supply to a power consuming component of a computer system [col. 9, lines 28-46].

It would have been obvious to one of ordinary skill in the art to combine the teachings of Norris and Ninomiya by modifying Norris to allocate power as a portion of a unit power supply, as taught by Ninomiya. Both Norris and Ninomiya are concerned with controlling power in a battery-powered portable computer systems [Norris, col. 1, lines 15-20, Ninomiya, col. 1, lines 18-20]. The teachings of Ninomiya would improve the system of Norris by providing a way to allow the user to know how power allocation will translate into useable battery time [col.1, lines 39-47].

Regarding claim 2, Ninomiya teaches that the unit power supply is obtained by dividing a total power supply amount by a total number of power supply cycles within a desired usage time [col. 9, lines 28-32].

Regarding claims 3 and 4, Ninomiya teaches designating a total number of power supply cycles within a desired usage time, calculating the total power supply amount and unit power supply, and also a periodic correction procedure interval [col. 10, lines 44-50]. Ninomiya also teaches observing the utilization of the unit power supply allocated to each task when a periodic correction procedure is reached, and redistributing the unit power supply allocated to each task based on the observation.

Regarding claim 19, Norris and Ninomiya teaches the method of claim 1, and also the portable device that implements the claimed method.

Allowable Subject Matter

Claims 11-18 are allowed.

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji H. Bae whose telephone number is 571-272-7181. The examiner can normally be reached on Monday-Friday, 10 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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